Chapter 4.4.8: Stormwater Management

4.4.8-1 INTRODUCTION

This chapter describes existing conditions related to stormwater management infrastructure and provides an assessment of the potential impacts of the Project on stormwater management methods and drainage facilities.

4.4.8-2 METHODOLOGY

The stormwater assessment was based on field surveys on the Project site and a review of published data from the New York State Department of Environmental Conservation (NYSDEC).

The following regulations govern stormwater at the Project site:

- ***State Pollutant Discharge Elimination System (SPDES) (New York State Environmental Conservation Law Article 3, Title 3; Article 15; Article 17, Titles 3, 5, 7, and 8; Article 21; Article 70, Title 1; Article 71, Title 19; Implementing Regulations 6 NYCRR Part 750):*** Under Section 402 of the federal Clean Water Act, stormwater discharges to the waters of the U.S. require authorization by a National Pollutant Discharge Elimination System (NPDES) permit or an authorized state permit program. New York State has established the State Pollutant Discharge Elimination System (SPDES) program for regulating wastewater and stormwater discharges to groundwaters and surface waters. Title 8 of Article 17, ECL, Water Pollution Control, authorized the creation of the SPDES program to regulate discharges to the State's waters. Because the SPDES program has been determined to be at least as protective of New York State's waters as prescribed by the Clean Water Act, the U.S. Environmental Protection Agency has approved New York's SPDES program for the control of wastewater and stormwater discharges. Activities requiring a SPDES permit include point source discharges of wastewater into surface or ground waters of New York State, including the intake and discharge of water for cooling purposes, constructing or operating a disposal system, discharge of stormwater, and construction activities that disturb one acre or more.

4.4.8-3 EXISTING CONDITIONS

Currently, most of the Project site's stormwater control measures are limited to earthen trenches or ditches along the rail right-of-way leading to the bridge. By design, precipitation infiltrates through the railroad ballast and into the underlying soil in order to maintain the integrity of the rail structure and avoid wash-outs. There are no drainage controls on the existing Portageville Bridge. The bridge has an open truss deck through which stormwater discharges directly to the Genesee River.

As discussed in Chapter 4.4.3, "Surface Waterbodies and Watercourses," an intermittent stream on the Wyoming County side of the river flows beneath the railroad's right-of-way within an approximately four-foot-square limestone culvert. This stream is referred to in this DEIS as "Stream B." The structure of the downstream end of this culvert appears to be compromised, although water continues to pass through the culvert. The upstream side of this drainage culvert has been recently reconstructed by Norfolk Southern to improve drainage and slope stability.

Near the Portageville Bridge, Letchworth State Park has a stormwater drainage system that consists of catch basins at the edges of Park Road and the small parking lot that direct stormwater to underground pipes that pass beneath the road and release stormwater to the river. Four catch basins are located around the edges of the small parking lot; at one of those catch basins, a small wetland has formed from water that ponds upgradient of the storm grate (referred to as "Wetland A;" see Chapter 4.4.1, "Wetlands").

The Project corridor is not adjacent to or discharging runoff to a Total Maximum Daily Load (TMDL) Watershed or a NYSDEC-listed 303(d) waterbody.

4.4.8-4 EFFECTS ASSESSMENT

4.4.8-4-1 No Action Alternative

The No Action Alternative would not involve any changes to the existing Portageville Bridge. As a separate and independent undertaking, a series of directionally bored culverts would be constructed to assist in the drainage of Stream B under the railroad bed. Stormwater would continue to recharge to underlying soils through ballast at the bridge approaches and discharge directly to the river from the bridge itself. Wetland A would continue to drain to the Letchworth State Park system.

4.4.8-4-2 Preferred Alternative

As noted above, as a separate and independent undertaking, a series of directionally bored culverts would be constructed to assist in the drainage of Stream B under the railroad bed.

The Preferred Alternative would involve relocation of Park Road and the small parking lot (Highbridge Parking Area) in the vicinity of the new railroad bridge. As part of the Project, the existing park stormwater drainage system in this area would also be relocated. One stormwater outfall would be removed as part of gorge excavation required for the new bridge foundation. To the extent practicable, vegetated swales would be used to direct stormwater and allow it to infiltrate the ground. Where necessary, new catch basins would be created along the new parking lot and new roadway to collect stormwater, which would be directed via pipes beneath Park Road, as occurs today. Design of the stormwater collection features would be coordinated with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP).

Construction of the Preferred Alternative would disturb more than one acre of land and would involve a SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001). Plans and details will be developed during the advance detail design phases of the Project in accordance with applicable provisions of Section 209 (Temporary Soil Erosion and Water Pollution Control) of the New York State Department of Transportation's Standard Specifications and the New York Stormwater Design Manual in order to address criteria identified in the Stormwater Pollution Prevention Plan (SWPPP). These plans and details will include soil and erosion control measures, which will serve to minimize the potential for pollutants from construction of the Project to reach the Genesee River.

The new bridge would have a solid (ballast) rather than open deck. In addition, the relocated Highbridge Parking Area would be larger than the existing parking lot, which would increase paved surfaces. If needed and appropriate, additional surface water drainage facilities, to be developed during the Project's final design, would be installed. The purpose of these facilities would be to protect the integrity of the bridge foundations and adjacent infrastructure (roads, trails) by controlling drainage pathways and to protect water quality in the Genesee River by limiting erosion and sedimentation.

4.4.8-5 SUMMARY OF MITIGATION

Potential impacts to surface water bodies will be avoided and minimized through planning and design efforts. A SWPPP will be developed and implemented during construction. The SWPPP consists of two components: a Stormwater Management Plan and an Erosion and Sediment Control Plan. The Erosion and Sediment Control Plan will be developed to include appropriate Best Management Practices to minimize impacts to water quality during construction. The plan will incorporate applicable techniques and standards as necessary as outlined in NYSDEC's publication *New York State Standards and Specifications for Erosion and Sediment Control* (August 2005).